

SOME RARE ACALYPTRATE DIPTERA TAKEN IN RECENT YEARS

ANDREW GODFREY

Ecosurveys Ltd, Priory Lodge, Hagnaby, Spilsby, Lincolnshire PE23 4BP.

During 1991, 1992 and 1993 I have been fortunate to find several rare and little known acalyptrate Diptera. These include the second British specimen of *Pseudopomyza atrimana* (Pseudopomyzidae), a third locality and the first British inland records for *Parochthiphila coronata* (Chamaemyiidae), and recent records of *Stenomicroa delicata* (Stenomicroidae). In addition, a number of interesting species, collected during the same period, have been identified in material sent to me for identification. Peter Chandler has also kindly added his records of *Stenomicroa delicata*. Details of these are given below.

Typhamyza bifasciata Wood (Anthomyzidae)

A single female was taken by beating *Carex paniculata* L. tussocks at the centre of a dried-out pond vegetated by *Typha* at Thompson Common, Norfolk (Grid Reference TL 99) on 11.viii.1991. More recently, I took a single specimen by sweeping a *Typha*-rich ditch on Neatscourt Marshes, Isle of Sheppey, Kent (TQ918714) on 25.vi.1993. I have also identified another female from Norbrigg Pool, Derbyshire SK4475 taken on 5.vii.1992 by Derek Whiteley (specimen in the collection at Weston Park Museum, Sheffield). An increasing number of recent records (for example: Ismay, 1981; McLean, 1987; Withers, 1987) suggests it is more widespread and not as rare as was previously thought. Rohacek (1992) has recently provided an excellent account of the taxonomy, morphology and ecology of this species.

Stenomicroa delicata (Collin) (Stenomicroidae)

This obscure and very rare fly was described as new to science by J. E. Collin (1944) from a small number of specimens taken from a dried-up artificial pond in a garden in Newmarket in June and July 1942 and 1943. As far as I am aware, the only published records since are from Czechoslovakia (Papp, 1978; Rohacek, 1983). Papp recorded a single specimen whilst Rohacek took two females at light. It is currently given Red Data Book Status 2 in Britain (Falk, 1991).

I took a single female of this species whilst examining the tussocks of *Carex paniculata* at Holwell Mouth SSSI, Leics. (SK724245) on 1.ix.1991. The tussock sedge grows by the streamside in a small valley and is surrounded by an area of marshy ground dominated by *Carex riparia* Curtis, *Filipendula ulmaria* (L.) Maxim. and *Equisetum telmateia* Ehrh. with willow carr nearby and throughout the valley. The streams here are spring fed. Several other interesting flies were taken in the tussocks including *Stilpon graninum* (Fall.), *Drapetis assimilis* (Fall.), *Elaphropeza ephippiata* (Fall.), *Elachiptera brevipennis* (Meig.), *Oscinisoma cognata* (Meig.) and *Trimerina madizans* (Fall.).

Two males and six females of *S. delicata* were taken from *Carex paniculata* tussocks at Barnby Marshes, Suffolk (TM482904) on 7.vii.1993. One male and one female were taken a few days later amongst *Carex pseudocyperus* L. and *Deschampsia caespitosa* (L.) P. Beauv. in a damp ditch at Swangey Fen, Norfolk (TM013933) on the 10.vii.1993. Peter Chandler has informed me that he has taken this species from *Carex paniculata* at two sites in Hampshire—The Moors, Bishop's Waltham on 13.vii.1990 (one male, two females); and Greywell Fen on 15.vii.1990 (one male).

Since *S. delicata* was described, a second species, *S. cogani*, has been described as new to science from Britain (Irwin, 1982). There are at least two further undescribed species from Europe (J. Ismay, pers. comm.; Andersson, 1991).

Parochthiphila coronata (Loew) (Chamaemyiidae)

This species was swept in small numbers from short grassland at Blackburn Meadows (also known as Tinsley Sewage Beds), Sheffield, South Yorks (SK4191 & SK4192) on 29.vii.1991 and on 18.vii.1993. It was only previously recorded in Britain from two localities on the coasts of Essex and Norfolk (McLean, 1980) and is accorded Red Data Book Status 1 (Falk, 1991). The male genitalia were checked since there are several further *Parochthiphila* species in Europe and the CIS, and because the Sheffield specimens are the first inland records for this species in Britain (the species occurs inland throughout the rest of the Palaearctic, however). Differences in the genitalia were detected using the work by Tanasijtshuk (1986) but they are very similar to the figures given by Raspi (1983). The ecology of *P. coronata* has been described by these workers. The larvae have been recorded feeding on coccids at the base of *Elymus repens* (L.) Desv. ex Nevski and *Ammophila arenaria* (L.) Link. (Grasses from the exact site of the Tinsley specimens have been identified for me by Mr Tim Smith and comprise *Agrostis stolonifera* L., *Dactylis glomerata* L., *Lolium perenne* L., *Holcus lanatus* L. and *Arrhenatherum elatius* (L.) P. Beauv. ex J. S. & C. Presl.)

Pseudopomyza atrimana Frey (Pseudopomyzidae)

A male of this species was taken by sweeping on a visit to Loch na Dal, Isle of Skye (NG704160) on 11.vii.1991. This obscure fly has been given Red Data Book Status 1 (Falk, 1991) and is the second (first male) British specimen. The species was added to the British list by Chandler (1983) from a female taken in Kent in 1972.

The site is an area of open seepage with *Sphagnum*, *Eriophorum*, and *Myrica* passing into birch and willow woodland on a gentle slope at the head of the Loch. Unfortunately it is not clear whether the fly came from the open area or from the woodland. The fly was recognized as unusual when sorting out the catch in the evening and it was subsequently identified as this species by Dr John Ismay and Peter Chandler. The genitalia compare well with that illustrated by Frey (1952) and is illustrated in Fig. 1.

Since Chandler (1983) published his record, the species has also been recorded from Hungary (Soós & Papp, 1984) and a second record for Czechoslovakia has been published (Frouz & Maca, 1985).

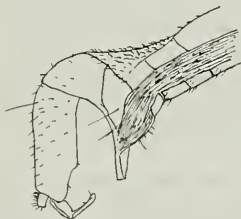


Fig. 1. *Pseudopomyza atrimana*, posterior part of male abdomen. Bar 1mm.

Periscelis annulata (Fall.) (Periscelidae)

A male was swept by my collecting partner, John Mousley, from Ballinluig Shingle Island on the River Tay near Pitlochry (NN9754) on 15.vi.1992 and subsequently passed to me in the evening along with other 'rubbish'. This species like all periscelids is rarely recorded and it is currently regarded as notable by Falk (1991). The larvae of the Periscelidae are associated with oozing tree sap (see, for example, Papp, 1988).

Asteia elegantula Zett. (Asteiidae)

A single specimen of this rare species was swept from the overhanging bank of a small stream near South Fearn (NG5835) on the Isle of Raasay, Inner Hebrides on 8.vii.1991. The partially dry stream bed comprised large water-worn stones and pebbles, no doubt derived from the boulder clay through which the stream was incised. The stream banks were approximately 2 feet high and vertical, with gentle bracken-covered, landslipped slopes above. Chandler (1978) records the fly from Moray, Ross and Herefordshire, the most recent being from Grantown-on-Spey in 1945. Irwin (1985) recently recorded it from Norfolk and Plant (1989) recorded it from Essex.

This species is given Red Data Book Status 2 in Falk (1991). The life history of *Asteia elegantula* was described by Freidberg (1984) from observations in an Israeli garden where the insect proved to be common. Freidberg does, however, state his specimens may represent another species.

Pseudopachychaeta heleocharis (Nartshuk) (Chloropidae)

A female was swept on the south side of the main lagoon at Blackburn Meadows, Sheffield, South Yorks (SK411918) on 31.vii.1991. The vegetation here includes *Phragmites*, *Glyceria*, *Typha*, *Eleocharis* and *Potentilla palustris* (L.) Scop. Ismay (1991) recently added this to the British fauna.

Crumomyia pedestris (Meig.) (Sphaeroceridae)

A female of this very distinct and infrequent brachypterous fly was taken in a pitfall trap placed on the edge of *Carex* marsh by the River Ock, near Noah's Ark public house, Abingdon, Oxon SU441960. The trap was in position for two weeks and was emptied on 14.vii.1992.

Neottiophilum praeustum (Meig.) (Neottiophilidae)

A female was identified in material sent to me by John Mousley. This specimen was swept along the River Babingley, Flitcham, Norfolk TF7326 on 19.v.1992. The larvae are parasites on nestling passerines; a list of hosts is given by Owen (1957). Adults are rarely seen although Irwin (1987) recently recorded the species from Norfolk.

Parydroptera discomyzina (Collin) (Ephydriidae)

A single male was found in a pitfall trap at Iwade Marshes, Iwade, Kent (TQ911690). The trap was put down on the 26.vi.1993 and the contents recovered on 5.vii.1993. The trap was placed in herb-rich grazing marsh.

This species was originally described by Collin (1913) from Rye in Sussex and from Southwold in Suffolk. Ismay (1980) has published details of further specimens taken at Rye. I know of no other British records. The species is given Red Data Book Status 2 in Falk (1991).

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REFERENCES

- Andersson, H. 1991. [Stenomericidae (Diptera), first record of the family from Fennoscandia]. *Ent. Tidskr.* **112**: 149–151.
- Chandler, P. J. 1978. A revision of the British Asteiidae including two additions to the British list. *Proc. Trans. Br. Ent. Nat. Hist. Soc.* **11**: 23–34.
- Chandler, P. J. 1983. *Pseudopomyza atrimana* (Meigen) (Diptera, Pseudopomyzidae), a fly of an alycyptrate family new to the British list. *Proc. Trans. Br. Ent. Nat. Hist. Soc.* **16**: 87–91.
- Collin, J. E. 1913. *Parydroptera discomyzina* and *Philygria semialata*; new Palaearctic Ephydriidae (Diptera). *Entomologist* **46**: 1–3.
- Collin, J. E. 1944. The British species of Anthomyzidae (Diptera). *Entomologist's Mon. Mag.* **80**: 265–272.
- Falk, S. J. 1991. *A review of the scarce and threatened flies of Great Britain Part 1*. Nature Conservancy Council.
- Freidberg, A. 1984. The mating behaviour of *Asteia elegantula* with biological notes on some other Asteiidae (Diptera). *Entomol. Gener.* **40**: 217–224.
- Frey, R. 1952. Über *Chiropteromyza* n. gen. und *Pseudopomyza* Strobl (Diptera, Haplostomata). *Notul. Ent.* **32**: 5–8.
- Frouz, J & Maca, J. 1985. Faunistic records from Czechoslovakia. Diptera: Pseudopomyzidae. *Acta Ent. Bohemoslov.* **82**: 154.
- Irwin, A. G. 1982. A new species of *Stenomicro* Coquillet (Aulacigastridae) from Anglesey, North Wales. *Entomologist's Mon. Mag.* **118**: 235–238.
- Irwin, A. G. 1985. *Asteia elegantula* (Diptera, Asteiidae) in East Anglia. *Entomologist's Mon. Mag.* **121**: 138.
- Irwin, A. G. 1987. *Neottiophilum praeustum* (Dipt., Piophilidae) new to East Anglia, with a cautionary note. *Entomologist's Mon. Mag.* **123**: 82.
- Ismay, J. W. 1980. *Parydroptera discomyzina* Collin (Dipt., Ephydriidae) recaptured in Sussex. *Entomologist's Mon. Mag.* **114**(1979): 244.
- Ismay, J. W. 1981. Some Diptera from Wytham Wood. *Entomologist's Mon. Mag.* **117**: 26.
- Ismay, J. W. 1991. A revision of the British species of *Lasiosina* Becker and *Pseudopachychaeta* Strobl (Diptera, Chloropidae). *Entomologist's Mon. Mag.* **127**: 243–250.
- McLean, I. F. G. 1980. The genus *Parochthiphila* (Dipt., Chamaemyiidae) in Britain. *Entomologist's Mon. Mag.* **116**: 32.
- McLean, I. F. G. 1987. *Anthomyza bifasciata* Wood (Diptera, Anthomyzidae) recorded from East Sussex & Norfolk. *Proc. Trans. Br. Ent. Nat. Hist. Soc.* **20**: 136.
- Owen, D. F. 1957. *Neottiophilum praeustum* in birds' nests. *British Birds* **1**: 160–164.
- Papp, L. 1978. Bizonnyalan helyzetu torpikkelnelkuli legyemek. *Fauna Hung.* **133**: 195–202.
- Papp, L. 1988. *Periscelis kabuli* sp.n. and *P. kaszabi* sp.n. with notes on larvae and pupae of the Families Aulacigastridae and Periscelidae (Diptera). *Acta Zool. Hung.* **34**: 273–284.
- Plant, C. W. 1989. Thorndon Park, Essex, 22 July 1989. Field Meetings Report. *Br. J. Ent. Nat. Hist.* **2**: 176.
- Raspi, A. 1983. [Contribution to the knowledge of the Chamaemyiids. 2 Ethology and morphology notes of *Leucopsis interruptovittata* Aczel, *Chamaemyia flavipalpis* (Haliday) and *Parochthiphila coronata* (Loew) in the coast of Tuscany]. *Frust. Entom.* New series **6**: 103–139.
- Rohacek, J. 1983. Faunistics of the Czechoslovakian species of Anthomyzidae and Stenomericidae (Diptera). *Cas. Slez. Muz. Opava [A]* **32**: 125–135.
- Rohacek, J. 1992. *Typhamyza* gen. n. for *Anthomyza bifasciata* Wood, with description of immature stages (Diptera, Anthomyzidae). *Boll. Mus. Reg. Sci. Nat. Torino* **10**: 187–207.
- Soós, A. & Papp, L. (Eds) 1984. *Diptera of the Palearctic region Vol. 10*. Akadémiai kiadó, Budapest.
- Stubbs, A. E. & Chandler, P. J. (Eds) 1978. *A dipterist's handbook*. The Amateur Entomologist's Society.
- Tanasijtshuk, V. N. 1986. *Fauna CCCP: Diptera Chamaemyiidae*. No. 134: 335.
- Withers, P. 1987. *Anthomyza bifasciata* Wood (Diptera, Anthomyzidae) discovered in an actively worked aggregate pit. *Proc. Trans. Br. Ent. Nat. Hist. Soc.* **20**: 136.